US Claims

1. Food product comprising an aqueous phase and gas microbubbles substantially dispersed in the aqueous phase which gas microbubbles have a coating and a mean diameter size distribution with a maximum below 10 μm, wherein the coating substantially consists of protein, characterized in that the pH of the aqueous phase is from 2.5 to 6.0.

2. Food product according to claim 1, wherein the protein is one or more proteins chosen from globular proteins.

3. Food product according to claim 2, wherein the protein is one or more proteins chosen from the group of albumins, transferrins or glycinins.

4. Food product according to claim 3, wherein the protein is one or more albumins chosen from serum albumins.

5. Food product according to claim 1, wherein the protein is egg white.

6. Food product according to claim 1, wherein the protein is bovine serum albumin and the pH of the aqueous phase is from 2.5 to 4.8.

7. Food product according to claim 1, wherein the protein is egg white protein and the pH of the aqueous phase is from 2.5 to 5.

8. Food product according to claim 1, wherein the protein is glycinin 11S and the pH of the aqueous phase is 6.0 or lower.

9. Food product according to claim 1, wherein a substantial part of the gas microbubbles is present in the form of aggregates.

10. Food product according to claim 9, wherein at least 80 wt.% of the gas microbubbles is present in the form of aggregates.

11. Food product according to claim 1, wherein the aqueous phase comprises an edible salt chosen from group I or group II salts or ammonium salts.

12. Food product according to claim 11, wherein the edible salt is chosen from group I or group II or ammonium halides, sulphates, phosphates or citrates.

13. Food product according to claim 12, wherein the edible salt is sodium chloride.

14. Food product according to claim 11, wherein the amount of edible salt is 0.1-10 wt.%, based on the total weight of the food product.

15. Food product according to claim 1, wherein the food product is a water and oil comprising emulsion.

16. Food product according to claim 15, wherein the water and oil comprising emulsion comprises a continuous oil phase and a dispersed aqueous phase.

17. Process for the preparation of a food product comprising the steps of:

a) preparing a mixture comprising protein and water
b) adjusting the pH of the mixture to a value within the range of 2.0-11.0
c) pre-incubating the mixture
d) subjecting the mixture to a sonication treatment
e) optionally, separating the product of step d) in a fraction rich in gas microbubbles and a fraction poor in gas microbubbles

f) using a fraction rich in gas microbubbles in part or in whole as a food ingredient

g) finishing the preparation of the food product.

18. Process acccording to claim 17, wherein after step d) the pH is adjusted, if adjustment is necessary, such that the pH of the aqueous phase of the food product is from 2.5 to 6.0.

19. Process according to claim 17, wherein after step d) an edible salt according to one or more of claims 11-13 is added to the fraction rich in gas microbubbles.

20. Process according to claim 17, wherein the fraction poor in gas microbubbles is recycled to step a).

21. Protein coated gas microbubbles, wherein the coating of the microbubbles substantially consists of whey protein.

22. Protein coated gas microbubbles according to claim 21, wherein the coating of the microbubbles substantially consists of whey protein of which the lactose content is 10 wt.% or lower, preferably 4 wt.% or lower.